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May 8, 2002

The Honorable Jeffrey W. Runge, M.D.  
Administrator  
National Highway Traffic Safety Administration  
400 Seventh St., SW  
Washington, DC 20590

**Subject: Docket Number NHTSA-2002-11419**  
**49 CFR Part 533**  
**National Academy of Science Study and Future Fuel**  
**Economy Improvements, Model Years 2005-2010**

Dear Dr. Runge:

ASSOCIATES

Bosch

Denso

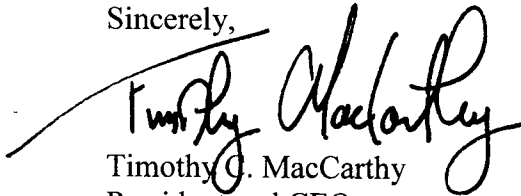
JAMA

Peugeot

Renault

Enclosed are the comments of the Association of International Automobile Manufacturers with regard to NHTSA's February 7, 2002, Federal Register notice requesting comment on Light Truck Fuel Economy Improvements for Model Years 2005-2010. For further information on or clarification of this matter, please contact Mr. John Cabaniss, AIAM's Director of Environment & Energy, at (703) 525-7788 x 238.

Sincerely,



Timothy C. MacCarthy  
President and CEO

cc: Noble Bowie, NHTSA Office of Safety Performance Standards  
Ken Katz, NHTSA Office of Safety Performance Standards  
Otto Matheke, NHTSA Chief Counsel's Office

Enclosure



**Response of the  
Association of International Automobile Manufacturers (AIAM)  
to the Request for Comments Issued by the  
National Highway Traffic Safety Administration (NHTSA)  
on the CAFE Study of the National Academy of Sciences (NAS) and on  
Future Fuel Economy Improvements for  
Model Year 2005-2010 Light Trucks**

**Docket No. 2002 - 11419**

**May 8, 2002**

AIAM<sup>1</sup> appreciates the opportunity to provide its comments in response to NHTSA's February 7, 2002, notice on the CAFE Program.

AIAM member companies have for many years been leaders in offering fuel-efficient vehicles for the U.S. market. Historically, vehicles produced by our member companies have headed EPA's annual list of most fuel-efficient vehicles. Indeed, these companies have achieved success in the U.S. market to a significant extent through the offering of high quality, fuel-efficient vehicles.

AIAM member companies have achieved this fuel economy leadership to a significant degree by pioneering the introduction of advanced automotive technology. The Honda Civic Hybrid and Toyota Prius hybrid vehicles are notable examples of this leadership. We anticipate that AIAM companies will continue to follow this advanced technology path that has led to their success.

AIAM made a presentation to the NAS Committee at the March 12, 2001, Committee meeting. In general, AIAM believes that the Committee's report represents a significant contribution to the CAFE literature and debate, including a number of recommendations for reform of the fuel economy program, which are discussed in further detail below.

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<sup>1/</sup> AIAM members include American Honda Motor Co., Inc., American Suzuki Motor Corporation, Daewoo Motor America, Hyundai Motor America, Isuzu Motors America, Inc., Kia Motors America, Inc., Mitsubishi Motors America, Inc., Nissan North America, Inc., Peugeot Motors of America, Inc., Saab Cars USA, Inc., Societe Anonyme Des Usines Renault, Subaru of America, Inc., and Toyota Motor North America, Inc. The Association also represents original equipment suppliers and other automotive-related trade associations. AIAM members have invested over \$20 billion dollars in new production and distribution capacity, creating tens of thousands of high-skill, high-wage jobs across the country in manufacturing, supplier industries, ports, distribution centers, headquarters, R&D centers and automobile dealerships.

As numerous analysts have noted, the current CAFE system has significant weaknesses. Chief among its flaws is that the program operates almost exclusively on the supply side, in that it simply directs manufacturers to produce vehicles having a specified level of average fuel economy or higher. On the demand side, however, current market signals and incentives are insufficient to cause consumers to demand such vehicles, producing an imbalance between marketplace demands and policy goals. CAFE also has been and, unless significantly modified or supplemented, will continue to be insensitive to future market shifts. AIAM believes that market-based measures would more efficiently promote national goals of energy security and reduced emission of greenhouse gases.

Nevertheless, we recognize that political realities may make it exceedingly difficult for the government to adopt more efficient strategies for promoting energy security and global climate policies, such as through higher or new fuel taxes. We also recognize that the seriousness of the current energy security and global climate concerns may justify a regulatory role for the Federal government in enhancing vehicle fuel efficiency. These considerations lead us to support the efforts of NHTSA to consider methods for improving the CAFE program and for assessing the potential for future fuel economy improvement.

AIAM will focus its comments on the policy questions that are presented in NHTSA's notice. Our comments are numbered consistently with the questions in NHTSA's notice.

**1. CAFE and safety.** AIAM believes that it is feasible to produce lighter, fuel-efficient vehicles that provide high levels of occupant safety. We urge the agency to review and update its analysis of the relationship between vehicle weight and safety. As part of this review, we urge the agency again to attempt to separate analytically the effects of vehicle size and weight. We note that the agency's most recent study involved only 1993 and older vehicles. An updated study would better reflect the current model mix and technology.

**10. Attribute-based standards formats.** AIAM strongly believes that the format of any future fuel economy standards must be designed to promote real world petroleum conservation and must impose any resulting burdens in a fair and equitable manner for all manufacturers. A basic element of fairness is that the same standards must apply to all manufacturers at the same time and we believe the current CAFE format meets this fairness test. However, it is possible that other standards formats could be designed that would also meet this test.

One standards format that was proposed and rejected during the current and previous legislative deliberations on CAFE is the uniform percentage improvement format. DOT lacks authority to adopt such a standards format and AIAM would strongly oppose any effort to authorize such standards. This standards format has been roundly criticized and thoroughly discredited by several respected organizations. Both the recent and the 1992

NAS CAFE Committees criticized the approach. The recent NAS Committee stated as follows:

The UPI system would impose higher burdens on those manufacturers who had already done the most to help reduce energy consumption. The peer-reviewed literature on environmental economics has consistently opposed this form of regulation. It is generally the most costly way to meet an environmental standard; it locks manufacturers into their relative positions, thus inhibiting competition; it rewards those who have been slow to comply with regulation; it punishes those who have done the most to help the environment; and it seems to convey a moral lesson that it is better to lag than to lead. In addition to fairness issues, the change would not eliminate the problems of the current CAFE system, but would create new ones. Implementation of such rules provides strong incentives for manufacturers to not exceed regulatory standards for fear that improvements will lead to tighter regulations. Thus, such rules tend to create beliefs counterproductive for longer-term goals.<sup>2</sup>

Should alternative standards formats be considered, they should be competitively neutral, technologically feasible and economically practicable. These could be in the form of market class-, size-, or weight-based standards, so long as the resulting standards levels are feasible and practicable, as noted above. Under such standards formats, fuel efficiency improvements would be required for all vehicle classes. The burdens of the standards would be approximately the same, regardless of the mix of vehicles produced by the manufacturer. It would be critical to assure that the system does not restrict the functional utility of light trucks. Weight-based standards would be one “neutral” way to set standards of equivalent stringency for vehicles of various sizes. A size-based standard would have advantages similar to those of weight-based standards, and would also provide an incentive for improved packaging or introduction of lightweight materials that reduce weight without reducing size. However, it could be difficult to classify vehicles properly and to integrate cars and trucks into the same system. Either weight or size formats could be incorporated into a continuous function, in order to avoid undesirable “edge-of-class” effects. However, a continuous function standard would make it even more difficult to integrate cars and light trucks. Another option might be to establish market segment classes, such as those created by Automotive News or Ward’s for reporting sales. This system could not be incorporated into a continuous function, but might be a good way to minimize competitive impacts by placing vehicles with similar market attributes in the same class.

**11. Credit trading.** New authority for credit trading between standards classes and between companies under the CAFE program would provide manufacturers with increased compliance flexibility in dealing with unanticipated market shifts. The recent

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<sup>2</sup> “Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards,” National Research Council, 2002, pages 92-3.

NAS report suggested this approach, as did the 1992 NAS report.<sup>3</sup> Broader trading, encompassing other industrial sectors, would provide even greater flexibility by establishing additional buyers and sellers of credits. In that way, there would be greater assurance of a continuing market for the credits. A broad credit trading system would provide a strong incentive for manufacturers to earn credits through voluntary fuel economy improvements, since there would be a strong likelihood that buyers would exist for the earned credits. Permitting such trading would also enhance the overall efficiency of the system.

Concerns have been expressed that a credit trading system would benefit some manufacturers over others. However, provided manufacturer trades were voluntary, both the seller and buyer of credits would benefit, otherwise the trade would not be consummated. This would add a degree of market flexibility not currently in the program. To the extent a manufacturer may be hesitant to either sell or buy from another manufacturer, a program could be established where the government acts as a seller of CAFE credits, as discussed in the recent NAS report. Under this approach, the government would set a fixed price for the credits that it would sell. This price would be set above the effective cost of compliance for a reasonably efficient manufacturer, to maintain the incentive for manufacturers to meet the fuel economy targets. However, for a manufacturer that faces unusual compliance problems or should market shifts occur or technology not develop as anticipated, this approach has the advantage of establishing a maximum cost of complying with the requirements. In addition, manufacturers could be required to make up any fuel efficiency shortfalls within a specified period of time. The credit system could replace the current civil penalty system under the law, a change that the 1992 NAS CAFE Committee characterized as a “real advantage.” In addition, the concepts of averaging and credit banking, which are part of the current system, should be retained.

**12. Elimination of the import/domestic “two-fleet” rule.** The current law requires dividing a manufacturer’s passenger automobile fleet into domestic and import classes that must comply separately with fuel economy standards. There is no similar requirement for light trucks. This requirement was originally intended to inhibit domestic manufacturers from simply importing large numbers of small, “captive import” vehicles as a compliance strategy. Subsequent events, such as consolidation within the industry, have shown that, whatever the original validity of this concern, the concern should no longer exist. There is no reason to believe that the current market would accept large numbers of very small vehicles that were originally designed for foreign markets. In some cases the provision has created a disincentive for foreign-based companies to increase the U.S. content of their vehicles to levels above 75 percent, since doing so would place the vehicles in a different compliance fleet. This disincentive is real, not theoretical, and has cost U.S. jobs. AIAM member companies have been compelled to limit increases in domestic content levels in the past in order to avoid creating a new CAFE compliance fleet. For example, Nissan’s efforts to increase the

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<sup>3</sup> Recommendation 2, page 114, id; “Automotive Fuel Economy – How Far Should We Go?” National Research Council, 1992,, page 184.

domestic content of its Tennessee-produced Sentra model were delayed by the separate fleet restriction. There have even been situations in which a company may have decreased the U.S. content of certain low efficiency domestic vehicles to a level below 75 percent, so that those vehicles can be averaged with the manufacturer's more fuel-efficient import fleet. The 2002 NAS CAFE study concluded that the separate fleet requirement "is no longer justifiable and should be eliminated."<sup>4</sup> We strongly concur in this assessment.

AIAM also urges NHTSA to consider the comments on this point that have been submitted by the Japan Automobile Manufacturers Association (JAMA), with which we agree.

## **15. Other policy issues.**

**a) Government support for pre-competitive research.** Government supported research can help provide a bridge to market introduction for advanced technologies that may be considered to be of too high a development risk for individual companies to pursue. Any such programs should be open to all manufacturers that have a substantial research capability within the U.S. With the increasing globalization of the world auto industry, distinctions based on historic geographic bases of companies have less and less relevance. Several AIAM member companies have substantial research presences in the U.S., and there is no justification for categorically barring such companies from participation in joint government-industry research programs.

**b) Market incentives.** As previously noted, a major deficiency of the CAFE system is the insufficiency of its market signals on the demand side to encourage consumers to purchase fuel-efficient vehicles. The best market signal is an increase in the cost of driving. Given the current political realities that work against increased fuel taxes, the next best alternative may be to create a variety of market incentives to stimulate demand for fuel efficiency as a vehicle attribute. Such incentives would encourage manufacturers to develop and introduce advanced technologies by enhancing the market for vehicles that use such technologies. Advanced fuel-efficient technologies are frequently costly, particularly in their first years of introduction, so incentives would facilitate the introduction of these items by helping to bridge the price differential between these vehicles and conventional vehicles. Congress has considered a variety of technology-based incentives in recent years to encourage consumers to purchase advanced technology vehicles, notably the CLEAR Act provisions that were recently passed by the Senate. AIAM member companies have generally supported these incentives. However, ideally, we believe that such incentives should be performance-based and technology-neutral, i.e., they should be designed to encourage the production and sale of fuel-efficient vehicles, regardless of the technology selected by the manufacturer to achieve high fuel efficiency.

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<sup>4</sup> Id, pages 89-90 and Recommendation 4, page 114.

**c) Fuels.** AIAM recognizes that NHTSA lacks authority to regulate fuel quality. Nevertheless, we urge NHTSA, in its discussions with other agencies that have such authority, to advocate enhancements in fuel quality as necessary to facilitate the use of advanced vehicle technology. As EPA recognized recently in its Tier 2 emissions standards and diesel sulfur regulations, advanced engine technology and high levels of fuel quality go hand-in-hand. Lean burn technology such as direct injection engines requires gasoline with very low sulfur levels, and advanced diesel engines will require diesel fuel with near zero sulfur levels in order to meet applicable emissions standards. Stability in distillation parameters of gasoline and control of deposits are also needed for future vehicles. In the longer term, special fueling infrastructure will be needed for fuel cells and certain types of hybrid vehicles. A coordinated and sustained effort will be needed to assure that appropriate fuels are available as new technologies are implemented.

**d) Lead time.** Fuel economy improvements can be most efficiently implemented when they are timed to coincide with manufacturers' normal redesign cycles. The precise amount of lead-time needed would vary depending upon the magnitude of any standards increase. The 18-month minimum lead-time currently specified in the law is clearly insufficient to enable manufacturers to comply with new standards of significantly increased stringency. Lead-time on the order of that suggested in the recent NAS study would be necessary for manufacturers to implement significant fuel economy improvements.